



OFFICE OF RESEARCH AND DEVELOPMENT SUPERFUND AND TECHNOLOGY LIAISON (STL) REGION 9 NEWSLETTER

Fall 2007, Edition 41

Ahhh, the fall is here! Cool nights and cooler pumpkin beer? Maybe, but what about getting ready for cold weather at your Superfund site? Even colder weather will be here soon! Welcome to another STL Newsletter. Included here are many new documents and of course, more workshops and conferences than our stretched budgets can afford. But maybe you'll find something that can help improve your work. Remember, many EPA workshops are free. Just like most EPA tech support.

As always, please take advantage of EPA support staff, whether the ORD Tech Support Centers, regional tech support, or the Forums (Groundwater, Engineering or Federal Facilities). Feel free to call me and I'll do my best to get the support you need, whether it is engineering, hydrogeology, aerial photos, or other support. And I hope this edition of the newsletter is in some way helpful!

Mike Gill
EPA Region 9
ORD Superfund and Technology Liaison
415-972-3054

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NATIONAL NEWS

New Tools and Technologies

Radionuclides PRG Calculator (From Stuart Walker, EPA)

The Office of Superfund Remediation and Technology Innovation (OSRTI) would like to announce the availability of the final electronic calculator entitled: "Preliminary Remediation Goals for Radionuclides in Buildings (BPRG)." The electronic calculator is intended to help risk assessors, remedial project managers, and others involved with risk assessment and decision making at sites with contaminated buildings. It provides guidance for establishing risk-based preliminary remediation goals (PRGs) for remedial actions at radioactively contaminated buildings under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). To learn more about the calculator and to use it, please go to: <http://epa-bprg.ornl.gov/>.

If you have any questions about the BPRG calculator, please contact Stuart Walker at 703-603-8748.

Ch-Ch-Ch-Ch-Changes.....

Las Vegas Technical Support Center Changes "Management" Hands

This next item may not matter to many folks, but I want to make you aware of this recent change. As of October 1st, the Superfund and Technology Liaisons (my group out of ORD) assumed management responsibility for technical support offered by the Las Vegas Lab's Technical Support Center (TSC). This TSC's focus has always been on site characterization and monitoring and until now, was managed by NERL

within ORD (the National Exposure Research Lab). I want to emphasize that the tech support is still there, but some contacts have changed. Some of you in Region 9 have come to me (Mike Gill) for this support in the past, and that still works. If you have gone to the lab in the past, it was to Ken Brown and more recently, Dr. Brian Schumacher.

This is where things have changed. Brian and his lab are no longer in that position of handling the requests or dealing with the contracts. If you need technical support related to site characterization and monitoring and cannot get a hold of me, please contact Felicia Barnett, the STL in Region 4. She can be reached at 404-562-8659 or <barnett.felicia@epa.gov>. You can also contact either one of us for more details on this change.

LOCAL NEWS

Research Examines Phytostabilization at Mining Sites in Arid and Semi-Arid Environments (Courtesy of Monica Ramirez, University of Arizona)

Technologies such as phytoremediation continue to show success in immobilizing metal contaminants and reducing acid rock drainage at mining sites [March 2006 *TNT*]. Superfund Basic Research Program (SBRP) researchers at the University of Arizona recently conducted field and greenhouse studies to evaluate phytostabilization at two semi-arid sites in Arizona. This type of phytoremediation aims to revegetate barren sites by replanting native plants capable of sequestering metals in the root zone without metal uptake in shoot tissues. Studies focused on identifying simple, low-cost revegetation strategies with minimal site preparation, compost application, or vegetation maintenance.

One study involved an 18-month field trial at the 100-acre Boston Mill mine tailings site adjacent to the San Pedro River. Testing evaluated growth of the salt- and drought-tolerant fourwing saltbush (*Atriplex canescens*) under the site's neutral pH conditions, with and without compost amendment. Study results showed more than 80% of the 40 *Atriplex* transplants survived regardless of compost treatment. With the exception of lead, uptake did not exceed regulatory guidelines for metals (aluminum, arsenic, cadmium, copper, iron, mercury, manganese, and zinc). A two-year study initiated earlier this year on 1.5 nearby acres uses a native seed mixture including quailbush as another potentially effective *Atriplex* species (*lentiformis*) for phytostabilization.

Quailbush also was tested under greenhouse conditions using low- and medium-pH samples— more typical of mining sites— collected from lead/zinc tailings of the Klondyke mine, a state-designated Superfund site in Arizona's upper Aravaipa Valley. Lead concentrations at this site exceed 20,000 mg/kg, and no vegetation remains. Due to wind and water erosion of tailings, downstream fish in Aravaipa Creek exhibit elevated levels of lead and cadmium. The greenhouse tests evaluated germination, growth, and metal uptake of plants in tailings amended with 0 - 25% compost (by weight). Results showed that a tailings amendment of 15% compost was required for normal plant growth. Bacterial analysis of tailings after plant growth indicated a 4- to 6-fold decrease in the autotrophic microbial populations associated with the site's acidic and stressed soil/plant conditions. Plant shoot tissue analysis showed little accumulation of metals.

Results from both sites demonstrate significant potential for native *Atriplex* species to stabilize mine tailings in arid and semi-arid environments. Current SBRP tests evaluate effectiveness of other native species as well as plant-growth promoting bacteria with potential to minimize the compost amounts needed for plant establishment.

For details on these and other SBRP studies, contact Monica Ramirez, University of Arizona.
(ramirez@pharmacy.arizona.edu).

Editor's Note: EPA recommends site evaluation and restoration of soil when necessary for optimal planting success. EPA is a proponent of using amendments such as biosolids to restore soil and stabilize metal contaminants along with planting.

RPM Garage Sale.....FREE EQUIPMENT!

Two Region 9 RPMs have excess equipment that they would like to "recycle" and are offering it up for free to other EPA'ers. There is an SVE system and a small portable office trailer. See below for more details. If you are interested, give them a call directly.

Free Real Estate in California! (From Dante Rodriguez, 9/14/07)

Dear Colleagues -

I have an EPA-owned trailer that my project no longer needs, and I am now making it available for anyone else who wants it. This equipment was used on the Del Amo Superfund Site as a decontamination trailer and an on-site lab from 1999 to 2006. It contains sinks, counters, a shower, a dressing area, and an open area. The trailer is in fair condition and is approximately 20 years old. It will require a flatbed truck for transport as the carriage and wheels cannot withstand being pulled on the street. It is currently located at the Army Corps of Engineers Storage Yard in South El Monte, California.

The dimensions are 12' x 34'. If you are interested or have any questions, please contact me at (415) 972-3166, or via email (rodriguez.dante@epa.gov).

Dante Rodriguez
Remedial Project Manager
Superfund Division

North view of trailer:



Excess Soil Vapor Extraction System Available

(From Jamey Watt - Oct 2nd email)

EPA has an SVE unit at one of our sites in Tempe that needs a new home. The SVE unit has been decommissioned and is in storage on property owned by the City of Tempe. I don't know a lot about this unit other than it is about 10 years old, was bought for approx. \$500,000, and was a very good unit during its operation. The SVE unit will need several minor repairs to get it back in operating condition. The unit is large and logistics/transportation will be an issue.

I would like to see this unit be put to use at another site cleaning up the environment (or maybe a school or university could use it for instruction). It needs to be moved from it's current location as soon as possible. There is no specific price for the system, so any reasonable offer will be considered.

Please forward this to any interested party and help me find a new home for this equipment. Attached below is a brief summary description and photo. Please call me at 415-972-3175 or email for additional information. Thanks for your help.

Sincerely,
Jamey Watt



Introduction

The CET Environmental Services, Inc. (CET) regenerative vapor treatment system was a component of a Superfund soil vapor extraction remedy. The system has been offline for approximately 3 years and is located at the City of Tempe Water Treatment Plant. The system is no longer needed in its current location and is available for reuse.

System Overview

The CET system was manufactured in 1996 or 1997. The system was designed to produce a vacuum necessary to extract solvent laden vapor from soil and extract the solvent using a fluidized bed reactor packed with adsorptive media. The design vapor flow rate of the treatment is specified as 450 to 550 standard cubic feet per minute (scfm). Configuration of the process equipment allows for the continuous adsorption and desorption of the vapor phase contaminants. During system operation, spent media is continually cycled from the absorber to a desorption chamber where the temperature is increased to 300°F and contaminants adsorbed by the media are released. Following a cooling phase, regenerated media is returned to the adsorption tower. Offgas from the desorption chamber is routed through two refrigerated condensers where the contaminant vapor is condensed to liquid. Non-condensable vapors exiting the cooling stage are recycled to the adsorber influent.

Ancillary Operating Requirements

Operation of the system requires the following ancillary inputs:

- Three-phase electrical power supplied at 460 volts (V) at a minimum service of 125 amps (the transformer voltage currently supplied to the site is 230V, but a new transformer could be added)
- Cooling water supplied at 3 gallons per minute (gpm) (no potable water supply currently onsite, but could add service or use effluent from pump-and-treat system)
- Nitrogen gas supplied at an estimated 1 scfm if contaminant concentrations in the desorbed vapor stream exceed their respective lower explosive limits (LEL), and
- In addition to the process requirements, operator oversight of the system is estimated at 12 hours per week; routine maintenance activities would also be anticipated.

Desert Remedial Action Technologies (D-RAT) Workshop Summary

From October 2-4, EPA's Region 9 and ORD, along with the Arizona Department of Environmental Quality and CH2MHill hosted the "Desert Remedial Action Technologies Workshop". The workshop centered on in-situ remedial technologies for VOCs, perchlorate and chromium in desert environments, reflecting some of the remedial challenges for Region 9. There were two days of lecture style presentations and then a 1/2 day field trip on Thursday to the Phoenix-Goodyear Airport Superfund site. Technologies including bioremediation, ISCO and nanotechnology were presented, along with a number of posters. Over 100 people attended and initial response was very good, with lots of useful Q&A and high attendance, even towards the end of the second day of talks.

Much of the workshop material is posted (agenda, abstracts, bios, presentations) and the proceedings will be posted there in the coming weeks as well. The website is located at this address:

<http://www.epa.gov/osp/stlworkshops.htm> . Click on Post-Workshop Info for this material.

Presentations:

1. Pilot Test of Deep Aquifer Permanganate Treatment
2. In-Situ Bioremediation for Treatment of Chlorinated Solvents and Perchlorate Impacted Groundwater in Desert Environments
3. Evaluation of an HRC and HRC-Primer Injection at a TCE-Impacted Site after the Operation of a Dual Phase Vacuum Extraction System
4. Perchlorate, TCE, and 1,4-Dioxane Investigation and Remediation at a Rocket Propellant Facility in a Semiarid Environment
5. Systematic Remedial Methodology for Chlorinated VOC Contamination of Soils and Groundwater Underlying Desert Landfills
6. Combined Groundwater Remediation Strategies Using Electrical Resistance Heating
7. Soil Vapor Extraction Pilot Test Study, Sierra Army Depot, Building 210 Area, Herlong, California
8. Nanoscale Zero Valent Iron Bench Scale Kinetic and Phase II Injection Testing, Phoenix-Goodyear Airport North Superfund Site, Goodyear, Arizona
9. Bench-Scale and Field-Scale Evaluation of Nanoscale Iron Transport and Reactivity
10. Catalytic Destruction of Gas-Phase TCE and PCE in Ground Water and Soils – Laboratory Study and Field Investigation
11. Remediation of Mixed Chromium and TCE Releases
12. In-Situ Geochemical Fixation of Chromium in Groundwater in Arid Climates: A Comparison of Chemical Reductant Technologies
13. Army Corps of Engineers Chromium Presentation

Posters:

1. HOW'D THAT GET IN THERE? A Practical Approach to Determining Sources of Unexpected Contaminants or Why Geochemical Characterization is Key to Remedial Investigations
2. In Situ and Ex Situ Perchlorate Bioremediation in Vadose Zone Contaminated Soil
3. In-Situ Bioremediation for Treatment of Chlorinated Solvents and Perchlorate Impacted Groundwater in Desert Environments
4. Thermally Enhanced Soil Vapor Extraction to Remediate Volatile Organic Compounds
5. Injectable Micro-Scale Iron for Source Treatment of Chlorinated Solvents in Deep Groundwater

6. Field Scale Investigation of Mass Flux Reduction as a Function of Source Zone Mass Removal for Immiscible Liquid
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DATEBOOK - UPCOMING EVENTS

This section of the newsletter is an attempt to present both EPA and non-EPA sponsored environmental technology related courses and conferences. But being a quarterly publication, it is impossible for this newsletter to always be up-to-date. For the most pertinent information on upcoming EPA courses, see <http://www.trainex.org>. These events are listed chronologically.

Many of the entries in these newsletters are from TIO's "TechDirect" emails (thank you Jeff Heimerman!). TechDirect prefers to concentrate mainly on new documents and the internet live events. However, they do support an area on the CLU-IN webpage where announcement of conferences and courses can be regularly posted. Sponsors can input information on their events at <http://clu-in.org/courses>. Likewise, the page has an area for upcoming events that might be of interest. It allows users to search events by location, topic, time period, etc.

Many of you know that www.clu-in.org routinely place seminars in the CLU-IN Studio archive after they have aired. This provides access to the slides and the audio file for each presentation. Some of you requested that we make these audio files more portable. Now they have done that. For more recent seminars, you now have the option to download them in MP3 format which will allow you to listen via portable music players. You may also subscribe to their podcast feed, which will alert you when new seminar archives are available. For more information, see <http://clu-in.org/live/archive.cfm>.

CLU-IN Training Area. A training section has been posted to CLU-IN. The Training page offers visitors a quick glimpse of upcoming training opportunities in a monthly view as well as a running list of events. Links to upcoming Conference Webcasts, Trainex and Archived Internet Seminars and Podcasts are available on the Training Page. See: <http://www.cluin.org/training>.

ITRC Internet Based Training

These are typically 1-2 hour online courses where the participant follows a webpage presentation, while listening on the phone. Check - <http://www.itrcweb.org> or <http://www.clu-in.org/studio/seminar.cfm> for times and registration.

NOTE: All dates/times are subject to change – check <http://www.itrcweb.org> for the most up-to-date information.

October 16th - *Evaluating, Optimizing, or Ending Post-Closure Care at Municipal Solid Waste Landfills*
2:00 p.m. - 4:15 p.m. EASTERN Time

October 18th - "[Nanoparticles and Ecotoxicology](http://www.cluin.org/live/default.cfm#Nanoparticles_and_Ecotoxicology)"
2:30 to 4:30 EDT (http://www.cluin.org/live/default.cfm#Nanoparticles_and_Ecotoxicology)

October 18th - *Risk Assessment and Risk Management: Determination and Application of Risk-Based Values*
11:00 a.m. - 1:15 p.m. EASTERN Time

October 30th - *Remediation Process Optimization Advanced Training*
2:00 p.m. - 4:15 p.m. EASTERN Time

November 15th - *Planning and Promoting Ecological Land Reuse of Remediated Sites*
11:00 a.m. - 1:15 p.m. EASTERN Time

November 29th - *Protocol for Use of Five Passive Samplers*
11:00 a.m. - 1:15 p.m. EASTERN Time

Long-Term Monitoring Optimization (LTMO) Training
October 17-18, 2007
Seattle, WA
<http://www.trainex.org>

2007 Northwest Environmental Summit
October 17-18, 2007
Tacoma, WA
<http://www.envsummit.com/>

The 15th Annual Region 9 EPA Tribal Conference
October 17-19, 2007
Elko, Nevada
(RTOC on October 15-16, 2007)

<http://www.temoaktribe.org/EPA/> and click on the "EPA Conference Registration Form."

Assessment and Remediation of Oxygenates and Other Fuel Components

October 22-23, 2007

Portland, OR

http://www.neiwpcc.org/neiwpcc_docs/oxygenates07portland.pdf

6th International Conference on Pharmaceuticals and EDCs in Water

October 22-23, 2007

Costa Mesa, CA

<http://www.ngwa.org/DEVELOPMENT/conferences/details/0710225013.aspx>

Remedial Process

October 22-26, 2007

Dallas, TX

<http://www.trainex.org/offeringslist.cfm?courseid=52&all=yes>

Western Regional Pollution Prevention Network (WRPPN) Annual Conference

October 23-25, 2007

San Diego, California

<http://www.westp2net.org/Conf07/home.cfm>

Arizona Waste-to-Energy Workshop

October 24, 2007

Phoenix, Arizona

Contact Maggie Witt (EPA Region 9) at witt.maggie@epa.gov

Sediment Remediation Course
October 29-31, 2007
Atlanta, GA
<http://www.smwg.org/>

Fall 2007 NATIONAL SBIR/STTR SBIR Conference
October 29 - November 1, 2007
Richardson, TX
http://www.texasone.us/site/PageServer?pagename=nat_conference

The American Water Works Association (AWWA) Water Quality Technology Conference and Exposition
November 4-8, 2007
Charlotte, NC
<http://www.awwa.org/conferences/wqtc/call/>

Petroleum Hydrocarbons and Organic Chemicals in Ground Water Conference
November 5-6, 2007
Houston, TX
<http://www.ngwa.org/DEVELOPMENT/conferences/details/0711055040.aspx>

EPA Technical Support Project (TSP) Meeting
November 5-8, 2007
Las Vegas, NV
<http://www.trainex.org/tsp>

Remedial Design/Remedial Action (RD/RA)
November 7-9, 2007 (postponed - no date selected yet)
Seattle, WA
<http://www.trainex.org/classdetails.cfm?courseid=47&classid=2956>

SETAC North America 28th Annual Meeting

November 11-15, 2007

Milwaukee, WI

<http://milwaukee.setac.org/home.asp>

Vapour Intrusion - A Rapidly Developing Environmental Challenge

November 13-15, 2007

Calgary, Canada

http://www.awma.org/events/view_event.html?typeid=1&id=53

DNAPL-2 Source Zone Characterization and Remediation

November 14-15, 2007

Long Beach, CA

<http://www.grac.org/dnapl.asp>

EPA's Environmental Information Symposium 2007

November 14-16, 2007

St. Louis, MO

<http://www.epa.gov/oei/proceedings/2007/proceedings07.htm>

U.S. Environmental Protection Agency's Environmental Information Symposium

November 14-16, 2007

St. Louis, Missouri

(For more info, contact Janice Jablonski at 202-564-9922 or jablonski.janice@epa.gov or Judi Maguire at 202-564-7422 or maguire.judi@epa.gov.)

NIEHS Superfund Basic Research Program Annual Meeting

December 3 - 5, 2007

Durham, NC

<http://tools.niehs.nih.gov/sbrp/events/index.cfm?id=23>

OSC 201

December 3-5, 2007

Kansas City, KS

<http://www.trainex.org/offeringslist.cfm?courseid=285&all=yes>

Removal Process for RPMs

December 4-5, 2007

Kansas City, KS

<http://www.trainex.org/offeringslist.cfm?courseid=53&all=yes>

SERDP/ESTCP SYMPOSIUM: Partners in Environmental Technology Technical Symposium & Workshop

December 4-6, 2007

Washington, D.C.

<http://www.estcp.org>

<http://www.serd.org/>

Best Practices for Efficient Soil Sampling Designs

December 5, 2007

Region 9 EPA - San Francisco, CA

<http://www.trainex.org/offeringslist.cfm?courseid=573&all=yes>

Waste Treatment, Transportation, and Disposal

December 6-7, 2007

Kansas City, KS

<http://www.trainex.org/offeringslist.cfm?courseid=46&all=yes>

International Symposium on Nanotechnology in Environmental Protection and
Pollution

December 11-13, 2007

Ft. Lauderdale, FL

<http://www.isnepp.org/ISNEPP07/front1.htm>

OPTIMIZING DECISION-MAKING AND REMEDIATION AT COMPLEX SEDIMENT SITES

January 8-10, 2008

New Orleans, LA

<http://www.smwg.org>

2008 North American Environmental Field Conference and Exhibition

January 14-16, 2008

Tampa, FL

<http://www.envirofieldconference.com/>

8th National Conference on Science, Policy and the Environment

Climate Change: Science and Solutions

January 16-18, 2008

Washington, DC

<http://www.NCSEonline.org/2008conference>

The 11th Annual Energy and Environment Conference (EUEC) on Air Quality, Mercury, Climate Change, and Renewable Energy

January 27-30, 2008

Tucson, AZ

<http://www.euec.com/>

Symposium on Emerging Chemicals in Soil and Groundwater: Detection, Analysis and Remediation

January 31 - February 1, 2008

Tampa, FL

<http://www.astm.org/cgi-bin/SoftCart.exe/COMMIT/COMMITTEE/D18.htm?L+mystore+lbgm3758>

2008 Environmental Industry Summit VI

February 20-22, 2008

San Diego, CA

<http://www.ebiusa.com/Summit2007/>

18th Annual AEHS Meeting & West Coast Conference on Soils, Sediments, and Water

March 10-13, 2008

San Diego, CA

<http://www.aehs.com/conferences/westcoast/program.htm>

2008 Conference on Design and Construction Issues at Hazardous Waste Sites

April 24-25, 2008

Philadelphia, PA

<https://superfund.usace.army.mil/2008DCHWS>

Brownfields 2008

May 5-7, 2008

Detroit, MI

<http://www.brownfields2008.org>

MODFLOW and More: Groundwater and Public Policy

May 19-21, 2008

Colorado School of Mines, Golden, Colorado

<http://www.mines.edu/igwmc/events/modflow2008/modflow2008.shtml>

Sixth International Conference on Remediation of Chlorinated and Recalcitrant Compounds

May 19-22, 2008

Monterey, CA

<http://www.battelle.org/environment/er/conferences/chlorcon/default.stm>

EPA Science Summit

May 20-22, 2008

Washington, DC

Triad Investigations: New Approaches and Innovative Strategies

June 10-13, 2008

Amherst, MA

<http://www.umass.edu/tei/conferences/triad.html>

2008 Annual Meeting of American Society of Surface Mining & Reclamation

June 14-19, 2008

Richmond, VA

http://www.cses.vt.edu/revegetation/ASMR_2008.html

WEB PAGES

Superfund Policy and Guidance Document Database

(From Stephen Hoffman, EPA HQ, August 7, 2007)

The enhancement to the Superfund policy and guidance document database on EPA's internet is complete and the database is live and accessible to the public at

<http://cfpub.epa.gov/compliance/resources/policies/cleanup/superfund/>. The enhancement consists of:

- a thorough review of current and past policy documents,
 - review of existing subject categories and development of new, updated categories,
 - development of a new home page to allow users to access the documents through a search mechanism, chronological index, and 44 subject categories,
 - development of content providing a brief summary of each of the 44 subject categories, and
 - recataloging of approximately 300 documents.
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The Hyporheic Network

(From the European Union)

The Hyporheic Network is a knowledge transfer network on groundwater - surface water interactions with a strong interest in the behavior of industrial pollutants in groundwater as they emerge into surface water, among other issues. The Network is about to establish a series of working groups to discuss both practical and research issues. More information and registration with the network is available at <http://www.hyporheic.net>.

Decision Support Tool (DST) Matrix Version 2.0

The Decision Support Tool (DST) Matrix has been updated in order to stay current with the evolution of environmental investigation and remediation technology. DSTs are interactive software tools used by decision-makers to help answer questions, solve problems, and support or refute conclusions. They can be incorporated into a structured decision-making process for environment site clean-up. The matrix is a table that provides general information about each DST, such as the types of files that may be imported to, or exported from, the DST, the characteristics of applicable sites (contaminants and media) and the functions it performs. The DST Matrix Version 2.0 includes five new DSTs in the matrix, one new mini-case study and updates of the information in the 20 DSTs that were included in Version 1.0, including notes about new features, new versions and documentation. View and use at <http://www.frtr.gov/decisionsupport/> .

New Cost and Performance Information on Cleanup Technologies

The Federal Remediation Technologies Roundtable (FRTR) recently published 38 new case study and technology assessment reports. These reports document the cost, performance, and lessons learned in implementing a wide range of hazardous waste site cleanup technologies in the field, ranging from large-scale demonstrations to full-scale applications. Visitors to the Web site can search these reports by remedial technology, optimization method, and other criteria. With these new additions, a total of 756 reports are now available in four areas - 393 cost and performance case study reports describing the use of remediation technologies; 175 reports describing the use of site characterization and monitoring technologies; 110 case studies describing long-term monitoring/optimization of remediation technologies; and 78 reports describing the assessments of remediation technologies at hazardous waste sites. View or search these reports at <http://www.frtr.gov/costperf.htm> .

AFCEE PBC/SOO Development Tool Available Online

(From AFCEE newsletter of Aug 8, 2007)

To aid in evaluating sites for suitability for performance-based contracting (PBC), AFCEE created the free, online PBC/Statement of Objectives (SOO) Tool. Through the Tool, the user is reminded of required information, assisted in identifying data gaps, have increased confidence in the selection of a PBC award, and be provided an assessment of PBC viability. Both a quick evaluation and full-scale evaluation are available. If the project that is being assessed by the Tool is well defined and considered a good candidate for PBC, answering the questions in the Tool will result in the generation of a draft SOO. Additionally, the AFCEE PBC Tool will also identify the potential "project-mine-fields" and recommend corrective actions or solutions based on lessons learned. In order to use the AFCEE PBC Tool, apply for a free, online secure account at www.afcee.brooks.af.mil/products/pbc/pbctool/.

AFCEE PBC Web Site Updated

(From AFCEE newsletter of Aug 8, 2007)

The USAF is undergoing a systematic review of its Environmental Remediation Program (ERP) and evaluating methods to implement exit strategies for sites and bases. These exit strategies can include a multitude of different approaches including privatization deals and PBC. Historically, maximum achievable cleanup technologies and cleanup standards have driven the ERP. Now, the USAF is committed to a systematic process where the AF mission or specific reuse objectives will drive the cleanup end states and, where possible, the USAF will execute exit strategies such as PBC to achieve those objectives. For more information on the AFCEE PBC Initiative, visit the newly updated AFCEE web site at:

www.afcee.brooks.af.mil/products/pbc/default.asp.

RECENT DOCUMENTS, DATABASES, ETC.

These entries are arranged alphabetically. Thanks to TechDirect, Tech Trends, NRMRL News, the ETV Program, DOE, DoD and others for posting their latest documents. And remember, many of these are available in paper format in the Region 9 library. Use your local library.....or it may disappear. It's happening at EPA.....

Abstracts of Remediation Case Studies, Volume 11 (EPA 542-R-07-004).
(August 2007, 92 pages).

<http://www.clu-in.org/download/frtr/volume11.pdf>

Arsenic Removal From Drinking Water by Adsorptive Media, U.S. EPA Demonstration Project at Richmond Elementary School in Susanville, CA, Six-Month Report
(EPA/600/R-07/024) June 2007

<http://www.epa.gov/nrmrl/pubs/600r07024/600r07024.pdf>

Arsenic Removal From Drinking Water by Iron Removal and Adsorptive Media, U.S. EPA Demonstration Project at Stewart, MN, Six-Month Evaluation Report
(EPA/600/R-07/047) June 2007

<http://www.epa.gov/nrmrl/pubs/600r07047/600r07047.pdf>

Arsenic Removal From Drinking Water by Iron Removal, U.S. EPA Demonstration Project at Big Sauk Lake Mobile Home Park in Sauk Centre, MN, Six-Month Evaluation Report
(EPA/600/R-07/048) June 2007
<http://www.epa.gov/nrmrl/pubs/600r07048/600r07048.pdf>

Clandestine Drug Laboratory Remediation: A Guide to Post-Emergency Response.
(October 2006, 25 pages).
<http://www.astswmo.org/files/publications/cercla/removals/Drug-Lab-Paper-final.pdf>

Comparison of Remedial Systems Employed at Drycleaner Sites
http://www.drycleancoalition.org/download/site_profile_paper.pdf

A Cost Comparison Framework for Use in Optimizing Ground Water Pump and Treat Systems
(EPA 542-R-07-005)
(May 2007, 60 pages)
<http://www.clu-in.org/download/remed/hyopt/542r07005.pdf>

Ecological Revitalization and Attractive Nuisance Issues (EPA 542-F-06-003).
(June 2007, 12 pages).
<http://www.clu-in.org/download/remed/542f06003.pdf>

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(EPA 542-R-07-012)

In coming months, specific information about each technology application included in the ASR Twelfth Edition will be incorporated into the ASR Remediation Database available at <http://cfpub.epa.gov/asr/>. View or download the ASR at <http://clu-in.org/asr>.

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Serious Scientists Gather 'Round...

....journal articles that are not so funny this month, but certainly interesting.....

TI: Detoxification of 2,4-dinitrotoluene by Transgenic Tobacco Plants Expressing a Bacterial Flavodoxin
AU: Tognetti, VB; Monti, MR; Valle, EM; Carrillo, N; Smania, AM
JN: Environmental Science and Technology
PD: 2007
VO: 41
NO: 11
PG: 4071-4076
PB: ACS AMERICAN CHEMICAL SOCIETY
IS: 0013-936X
PE: JUN 01
URL: <http://www.ingentaconnect.com/content/docdel/art1072693334>

TI: Budget cuts weaken EPA's workforce: Morale is at the lowest point in 25 years among many agency scientists
AU:
JN: Environmental Science and Technology
PD: 2007
VO: 41
NO: 12
PG: 4184
PB: ACS AMERICAN CHEMICAL SOCIETY
IS: 0013-936X
PE: JUN 15
URL: <http://www.ingentaconnect.com/content/docdel/art1072768652>

TI: Early American Medical Doctors Who Studied Ground Water
AU: Davis, SN
JN: Ground Water
PD: 2007
VO: 45
NO: 4
PG: 519-522
PB: BLACKWELL PUBLISHING LTD.
IS: 0017-467X
URL: <http://www.ingentaconnect.com/content/docdel/art1072893488>



Disclaimer

This quarterly newsletter publication is meant to be used for information only. It does not represent the opinion of the management of the regional or national offices of EPA, only that of the author. The accuracy of the information contained herein is not guaranteed, only desired. If corrections are necessary, please contact the author. Thanks again to all of my information resources, which include EPA's OSRTI (formerly TIO), ORD (including ETV and NRMRL News) and Region 1's CEIT.

Thanks for reading it! Comments and suggestions are appreciated. If you wish to be added to or deleted from this list, please send me an email. (gill.michael@epa.gov)

Newsletter archives can be found on the EPA intranet site.....<http://www.epa.gov/osp/hstl/hstlnewsletter.htm>

A number of environmental technology web resources can be found here.....<http://www.epa.gov/region09/waste/techlinks/>

And don't forget the "STL" website.....<http://www.epa.gov/osp/hstl.htm>

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